

REMARKS

Claims 1, 5, 11, 15, 21, and 25 are amended. No new subject matter is added. Claims 1-30 remain pending in the case. Reconsideration and allowance of the pending claims is requested in light of the following remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 3, 5, 6, 9, 11, 13, 15, 16, 19, 21, 23, 25, 26 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,297,144 to Gilbert et al. ("Gilbert") in view of U.S. Patent No. 6,069,885 to Fong et al. ("Fong") and U.S. Patent No. 5,890,134 to Fox ("Fox"). The applicant disagrees.

Claim 1 is amended to recite receiving reservation requests for wireless communication sessions from the first and second peripheral devices. These features are fully supported by the original application, at, e.g., page 3, lines 15-22.

Claim 1 is further amended to recite wirelessly transmitting a multi-poll scheduling frame to the first peripheral device and the second peripheral device. This feature is fully supported by the original application at, e.g., claim 1 and page 7, lines 21-23).

Claim 1 is amended in other ways, but the other amendments are fully supported by the previous version of claim 1.

Gilbert FIG. 3 illustrates a typical timing cycle for Gilbert's reservation-based polling protocol (column 7, lines 23-24). The protocol is cyclical with each cycle consisting of a reservation request period and a polled data period (FIG. 3; column 7, lines 28-30). To initiate the timing cycle, the central station transmits a reservation sync RS frame 52 to all the remote stations (FIG. 3; column 7, lines 35-36). The reservation sync RS frame is issued periodically, and it defines the start of a number of time slots (column 7, lines 38-39).

Every remote station has a preassigned waiting period that begins upon the reception of the reservation sync frame (column 7, lines 41-42). These waiting periods are illustrated as time slots TS in FIG. 3, which fill up the remainder of the reservation request period (column 7, lines 42-45). During the reservation request period, if a remote station has data to transmit, it will issue a reservation request RR frame 53 during the time slot that was previously assigned to it (column 7, lines 46-56). Thus, Gilbert's reservation request period is in keeping with conventional implicit polling techniques (column 2, lines 42-50).

However, "[a]fter every station has been given a chance to make a reservation, the central station will switch to a modified *explicit polling mode*, wherein it will *sequentially* issue an invitation to transmit to every remote station that made a reservation" (column 7,

lines 63-67; emphasis added). A remote station, upon receiving the poll signal that is addressed to it, will send its data to the central station (FIG. 3; column 7, line 67 to column 8, line 5). After the data is received from the first remote station, the central station checks its poll list to determine which remote station will be polled next (column 8, lines 5-7). The polling ends once the last station on the polling list has sent its data (column 8, lines 10-12).

Based on the above teachings of Gilbert, it seems evident that during the reservation request period, all remote stations are allocated a timeslot where they may request a reservation from the central stations. During the polled data period, after the reservation requests have been received, Gilbert explicitly polls only those remote stations that previously requested a reservation.

The teachings of Gilbert that were identified above distinguish it from claim 1 in several ways.

First, contrary to claim 1, Gilbert does not transmit a multi-poll scheduling frame to a first peripheral device and a second peripheral device, where the multi-poll scheduling frame encodes a schedule that coordinates a wireless communication session with the first peripheral device and another wireless communication session with the second peripheral device. Rather, as indicated above, Gilbert explicitly polls each remote station sequentially and individually.

Furthermore, Gilbert contains no teaching that the poll signals that are sent to the individual remote stations during the polled data period contain an encoded schedule for each one of the individual remote stations. Indeed, Gilbert teaches away from such a feature because it explicitly polls each of the remote stations that requested a reservation. The remote station need only wait to receive the poll signal that is specifically addressed to it, after which it may begin to transfer data to the central station.

Neither Fong nor Fox are alleged to teach the above features of claim 1, nor do they do so.

Further regarding claim 1, it was recognized that Gilbert and Fong fail to teach the recited feature that the processor is adapted to wirelessly transmit a rescheduling frame in response to the wireless data exchange with the first peripheral device completing before the designated end time occurs, the rescheduling frame dynamically enabling the second peripheral device to begin the another wireless communication session before the designated end time. Fox is alleged to teach this feature, but the applicant continues to disagree.

Fox is directed at an improved scheduling algorithm that improves the quality of existing computer assisted scheduling programs, which results in an improved scheduling

program (column 3, lines 28-31). According to Fox, each project is composed of a number of tasks, and the improved scheduling program starts with the entry of data about each task, such as task duration D and precedent constraints P (FIG. 1; column 6, lines 16-22). According to Fox, a precedent constraint P is when a certain task must be performed prior to another (column 6, lines 23-24).

The end result of Fox's process is to produce an optimized schedule S5 (FIG. 1). However, it is apparent that Fox's optimized schedule is produced before the first task in the project has ever begun (FIG. 1). Contrary to claim 1, Fox contains no teaching that a rescheduling frame is transmitted in response to the wireless data exchange with the first peripheral device completing before the designated end time occurs. Nor does Fox contain any teaching that the second time frame may be dynamically rescheduled to start before the designated end time in response to the rescheduling frame.

Also contrary to claim 1, Fox gives no indication that the duration D of a task is ever changed. Indeed, from Fox's standpoint, the duration D of a task is constant (FIG. 1; column 6, lines 16-22). Claim 1 recites dynamically enabling the second peripheral device to begin the wireless exchange of data before the designated end time of the first time window occurs, which indicates that the duration of tasks may be adjusted to minimize quiet periods.

For any one of the reasons described above, the Gilbert/Fong/Fox combination fails to establish a *prima facie* case of obviousness for claim 1 because it fails to teach or suggest all the features recited in the claim. MPEP 2143.03.

Claim 5 is amended to recite a processor adapted to wirelessly transmit a reservation request to another device for wireless communications with the another device. This feature is fully supported by the original application at, e.g., page 3, lines 15-22. Other changes to claim 5 are fully supported by the original specification at, e.g., claim 5.

Claim 5 further recites a processor that is adapted to receive a *multi-poll scheduling frame*, where the multi-poll scheduling frame is encoded with a schedule for wireless communications with another device only during a first time window having a defined start time and end time and for subsequent wireless communications during a second time window (emphasis added).

The applicant notes that the meaning of words used in a claim is not construed in a lexicographic vacuum, but *in the context of the specification* and the drawings. MPEP 2111.02(III), emphasis added. Furthermore, any interpretation given to the claims *must be consistent with the specification*. MPEP 2111, emphasis added.

The specification clearly indicates that a multi-polling frame includes instructions for more than one peripheral (page 4, lines 3-4). To the contrary, Gilbert teaches that after reservation requests have been made, the central station switches to a modified explicit polling mode where each remote station is sequentially and individually invited to begin wireless data exchange with the central station (column 3, line 66 to column 4, line 3; column 7, line 63 to column 8, line 12). Thus, since each one of Gilbert's poll signals are addressed to only one of Gilbert's remote stations, Gilbert cannot be said to teach that the remote stations receive a multi-poll scheduling frame that includes instructions for more than one peripheral.

It follows that, also contrary to claim 5, Gilbert's remote stations do not decode a schedule having a first time window and a second time window from the multi-poll scheduling frame.

Neither Fong nor Fox are alleged to teach the above features of claim 5, nor do they do so.

Furthermore, similar to claim 1, claim 5 recites dynamically rescheduling wireless communications during the second time window to begin before the end of the first time window in response to the rescheduling frame and wirelessly exchanging data during the rescheduled second time window before the first time window ends.

It was recognized that Gilbert and Fong fail to teach these feature of claim 5, and Fox fails to teach these features of claim 5 for the same reasons that were outlined above in the discussion regarding claim 1.

For any one of the reasons above, the combination of Gilbert, Fong, and Fox fails to establish a *prima facie* case of obviousness for claim 5 because the combination does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claim 11 is amended to recite that the schedule is generated in response to a reservation request from the first peripheral device and the in response to a reservation request from the second peripheral device. This change is fully supported by the original application at, e.g., page 3, lines 15-22.

Claim 11 is also amended to recite that the multi-poll scheduling frame contains instructions for the first peripheral device and the second peripheral device. This feature is fully supported by the original application at, e.g., page 4, lines 3-4.

Contrary to the features recited in claim 11, Gilbert teaches that after reservation requests have been made, the central station switches to a modified explicit polling mode where each remote station is sequentially and individually invited to begin wireless data

exchange with the central station (column 3, line 66 to column 4, line 3; column 7, line 63 to column 8, line 12). Thus, since each one of Gilbert's poll signals are addressed to only one of Gilbert's remote stations, Gilbert cannot be said to teach that the multi-poll scheduling frame contains instructions for the first peripheral device and the second peripheral device.

Similar to claims 1 and 5, claim 11 also recites wirelessly transmitting a rescheduling frame to the second peripheral device that dynamically during the same wireless communication session that enables the second peripheral device to start wirelessly exchanging data before the end of the first time window, and wirelessly exchanging data with the second peripheral device before the first time window ends.

It was recognized that Gilbert and Fong fail to teach these feature of claim 11, and Fox fails to teach these features of claim 11 for the same reasons that were outlined above in the discussion regarding claim 1.

Regarding claim 15, it is amended to recite features similar to those found in claims 1, 5, and 11. The changes to claim 15, as indicated in the discussion above, are fully supported by the original application. Consequently, the combination of Gilbert, Fong, and Fox fails to establish a *prima facie* case of obviousness for claim 15, for the same reasons discussed above. MPEP 2143.03.

Regarding claim 21, it is amended to recite features similar to those found in claims 1, 5, 11, and 15. The changes to claim 21, as indicated in the discussion above, are fully supported by the original application. Consequently, the combination of Gilbert, Fong, and Fox fails to establish a *prima facie* case of obviousness for claim 21, for the same reasons discussed above. MPEP 2143.03.

Regarding claim 25, it is amended to recite features similar to those found in claims 1, 5, 11, 15, and 21. The changes to claim 25, as indicated in the discussion above, are fully supported by the original application. Consequently, the combination of Gilbert, Fong, and Fox fails to establish a *prima facie* case of obviousness for claim 25, for the same reasons discussed above. MPEP 2143.03.

Claims 3, 6, 9, 13, 16, 19, 23, 26, and 29 depend from one of the independent claims 1, 5, 11, 15, 21, or 25. Consequently, these claims are nonobvious with respect to the Gilbert/Fong/Fox combination at least because they depend from a nonobvious independent claim. MPEP 2143.03.

Claims 2, 4, 7, 10, 12, 14, 17, 20, 22, 24, 27 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilbert, Fong, Fox, and further in view of U.S. Patent No. 6,374,103 to Kamel et al. ("Kamel"). The applicant disagrees.

Claims 2, 4, 7, 10, 12, 14, 17, 20, 22, 24, 27, and 30 depend from one of the independent claims 1, 5, 11, 15, 21, or 25. Kamel is not alleged to teach the features of the independent claims that the Gilbert, Fong, and Fox fail to teach, nor does Kamel teach those features. Consequently, the combination of Gilbert, Fong, Fox, and Kamel fails to establish a *prima facie* case of obviousness for independent claims 1, 5, 11, 15, 21, and 25. MPEP 2143.03.

Therefore, claims 2, 4, 7, 10, 12, 14, 17, 20, 22, 24, 27, and 30 are allowable over the combination of Gilbert, Fong, Fox, and Kamel at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

Conclusion

For the above reasons, reconsideration and allowance of the pending claims is requested. Please telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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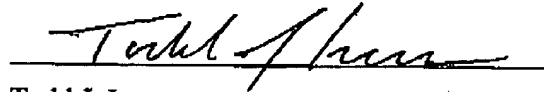
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